

Amendments to the Claims

Please cancel claims 1-18 and add new claims 19-53 as follows:

1.-18. (Canceled)

19. (New) Apparatus for regulating the functioning of a patient's organ or duct, comprising:

an elongated member having first end and second ends, the elongated member having a substantially smooth, atraumatic ventral surface;

a clip disposed on the first end of the elongated member, the clip configured to engage the second end of the elongated member so that the elongated member forms a loop around the organ or duct;

a flexible element slidably disposed within the elongated member, the flexible element defining a helical screw thread; and

a telemetrically-controlled actuator disposed on the second end of the elongated member, the actuator having a nut that engages the helical screw thread, operation of the actuator causing the nut to draw the helical screw thread therethrough, whereby the flexible element constricts the loop against the patient's body organ or duct.

20. (New) The apparatus of claim 19 wherein the elongated member comprises a protective covering.

21. (New) The apparatus of claim 19 wherein the apparatus is configured for laparoscopic introduction.

22. (New) The apparatus of claim 21 wherein the clip further comprises a tab extending from the first end of the

elongated member, the tab configured to pass through and engage an aperture disposed in the second end of the elongated member.

23. (New) The apparatus of claim 19 wherein a portion of the flexible element comprises a spring.

24. (New) The apparatus of claim 23 wherein the helical screw thread comprises:

a core wire;

a first helical spring disposed on the core wire, the helical spring having a square transverse profile; and

a second helical spring interwound with the first helical spring to define a pitch of the first helical spring and to permit flexion of the helical screw thread, while maintaining the pitch substantially constant.

25. (New) The apparatus of claim 19 wherein the elongated member comprises an elongated tube of compressible material that renders the ventral surface of the elongated member compressible.

26. (New) The apparatus of claim 25 wherein the compressible material is ePTFE.

27. (New) The apparatus of claim 19 wherein the telemetrically-controlled actuator further comprises:

an electric motor;

a gear transmission coupling the nut to the electric motor;

an antenna; and

an electronic circuit electrically coupled to the antenna and the electric motor.

28. (New) The apparatus of claim 27 wherein the antenna and electronic circuit are disposed within an elastomeric envelope.

29. (New) The apparatus of claim 28 wherein the elastomeric envelope has a substantially flat profile after subcutaneous deployment.

30. (New) The apparatus of claim 29 wherein the electronic circuitry and the antenna are collapsible.

31. (New) The apparatus of claim 20 wherein the dorsal periphery of the elongated member is reinforced to prevent diametral expansion of the dorsal periphery.

32. (New) The apparatus of claim 31 wherein a dorsal thickness of the protective envelope is greater than a ventral thickness of the protective envelope.

33. (New) The apparatus of claim 31 wherein a dorsal hardness of the protective envelope is greater than a ventral hardness of the protective envelope.

34. (New) The apparatus of claim 31 further comprising a reinforcing insert.

35. (New) The apparatus of claim 19 wherein the elongated member comprises a gastric ring designed to be implanted around a patient's stomach or esophagus.

36. (New) The apparatus of claim 19 wherein the elongated member comprises a ring designed to be implanted

around the bladder or urinary tracts, or around gastro-intestinal tracts or around blood vessels.

37. (New) The apparatus of claim 19 further comprising an emitting antenna disposed outside the patient and configured to send a control and power signal to the antenna, the emitter antenna being functionally linked to a control interface.

38. (New) Apparatus for gastric banding of a patient's stomach, comprising:

an elongated member having first end and second ends, the elongated member having a compressible ventral surface and a substantially rigid dorsal periphery and configured to be formed into a loop around a portion of a patient's stomach;

an electric motor disposed on the second end of the elongated member;

a nut actuator coupled to the electric motor;

a flexible element slidably disposed within the elongated member, the flexible element defining a helical screw thread, the flexible element having a fixed end coupled to the first end of the elongated member and a free end that engages and extends through the nut actuator,

wherein operation of the nut actuator draws the helical screw thread through the nut actuator and causes the flexible element to vary a diameter of the loop.

39. (New) The apparatus of claim 38 wherein a portion of the flexible element further comprises a spring.

40. (New) The apparatus of claim 39 wherein the helical screw thread comprises:

a core wire;

a first helical spring disposed on the core wire, the helical spring having rectangular transverse profile; and

a second helical spring interwound with the first helical spring to define a pitch of the first helical spring, the second helical spring having first and second ends operatively coupled to the core wire end to maintain the pitch substantially constant.

41. (New) The apparatus of claim 38 where the elongated member is reinforced on the dorsal periphery to prevent diametral expansion of the dorsal periphery of the elongated member.

42. (New) The apparatus of claim 41 wherein the elongated member comprises a reinforcing insert.

43. (New) The apparatus of claim 38 wherein the elongated member comprises an elongated tube of compressible material that renders the ventral surface of the elongated member compressible.

44. (New) The apparatus of claim 38 wherein the elongated member further comprises a protective covering.

45. (New) The apparatus of claim 44 wherein the protective covering provides a smooth, atraumatic surface for contacting the patient's stomach.

46. (New) The apparatus of claim 38 further comprising:

an antenna; and

an electronic circuit electrically coupled to the antenna and the electric motor.

47. (New) The apparatus of claim 46 wherein the antenna and electronic circuit are disposed within an elastomeric envelope.

48. (New) The apparatus of claim 47 wherein the elastomeric envelope has a substantially flat profile after subcutaneous deployment.

49. (New) The apparatus of claim 48 wherein the electronic circuitry and the antenna are collapsible.

50. (New) The apparatus of claim 46 further comprising an emitting antenna that transmits commands to the electronic circuit via the antenna.

51. (New) The apparatus of claim 38 wherein the apparatus is configured for laparoscopic introduction.

52. (New) The apparatus of claim 38 further comprising a clip disposed on the first end of the elongated member, the clip configured to engage the second end of the elongated member.

53. (New) The apparatus of claim 52 wherein the clip further comprises a tab extending from the first end of the elongated member, the tab configured to pass through and engage an aperture disposed in the second end of the elongated member.